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### Abstract

The present research had two goals. The first goal was to identify additional individual characteristics that may contribute to adaptive readiness. The second goal was to test if these characteristics fit the career adaptation model of readiness to resources to responses. We examined whether career success criteria (measured at Time 1) and career locus of control (measured at Time 1) would contribute to adaptivity and predict university students' career decision-making self-efficacy (measured at Time 2) through the mediation of career adaptability (measured at Time 1). Results based on a two-wave survey among a sample of 437 Chinese university students showed that the criteria of intrinsic fulfillment and work-life balance, as well as internal career locus of control positively predicted Chinese university students' career adaptability, which in turn predicted career decision-making self-efficacy. These findings support the career adaption model and carry implications for career construction theory and university students' career development.

Keywords: career success criteria, career locus of control, career adaptability, career decision-making self-efficacy

## Career Success Criteria and Locus of Control as Indicators of Adaptive Readiness in the Career Adaptation Model

Contemporary careers are becoming less structured and more boundaryless (Arthur, 1994; Arthur & Rousseau, 1996). Many scholars have argued that individuals need to develop relevant psychological strengths to cope with the challenge of multiple career transitions (Morrison & Hall, 2002; Savickas, 1997). Savickas (2005; 2013) used career adaptability to represent these psychological strengths, and proposed four underlying dimensions: concern, control, curiosity and confidence. Previous research has demonstrated that career adaptability served as an important predictor for career-related outcomes such as professional competence (Guan, Yang, Zhou, Tian, & Eves, 2016; Guo et al., 2014), job search outcomes (Guan et al., 2013a; Guan et al., 2014), salary (Guan, Zhou, Ye, Jiang, & Zhou, 2015) and career satisfaction (Chan & Mai, 2015).

The theoretical model of career adaptation assumes that adaptability resources are essentially fostered by adaptivity, which denotes willingness to respond to changing vocational tasks and conditions (Savickas, 2013). The career construction model of adaptation suggests that individuals who demonstrate adaptive readiness are more likely to develop career resources in the form of adapt-abilities (i.e., concern, control, curiosity, and confidence), which in turn lead to more effective adapting responses or coping behaviors. Adaptive readiness is conceptualized as a compound of personality traits such as proactivity and optimism. Previous research has examined several indicators of adaptivity, including big-five personality (van Vianen, Klehe, Koen, & Dries, 2012), behavioral inhibition system/behavioral activation system (BIS/BAS) traits (Li et al., 2015), proactive personality (Cai et

al., 2015; Tolentino et al., 2014), and self-esteem (Öncel, 2014). The present research had two goals: The first goal was to identify additional individual attributes that may contribute to adaptivity; the second goal was to test if these attributes fit the adaptation model of readiness to resources to responses. To this aim, the current research examined the roles of career success criteria and career locus of control in predicting individuals' career adaptability.

### *Career Success Criteria*

Career success criteria denote the ultimate career goals that individuals want to pursue (Arthur, Khapova, & Wilderom, 2005; Heslin, 2005). According to previous research (Zhou, Sun, Guan, Li, & Pan, 2013), there are three criteria of career success in the Chinese context: (a) fulfillment of intrinsic psychological needs such as achievement, autonomy and joy; (b) balance between work and non-work lives, and (c) extrinsic rewards such as monetary or material compensation. The first factor, intrinsic fulfillment, represents individuals' career goals of fully utilizing their talents and realizing their ideality in their careers (Zhou et al., 2013). From a self-determination perspective (Deci & Ryan, 1985; Ryan & Deci, 2000), individuals with this intrinsic form of motivation tend to regard their career development as interesting and joyful. Accordingly, these individuals may have a more proactive attitude toward career development activities, and be more persistent when facing difficulties, both of which are characteristics of adaptive readiness. We proposed the following hypothesis:

*Hypothesis 1a:* The intrinsic fulfillment factor of career success criteria relates positively to career adaptability.

The work-life balance criteria involve the goal of balancing work and non-work lives, and reducing the undue pressures from one undermining the satisfactory experiences of the

other. As career is a process in which individuals impose life meanings on their vocational choices and occupational transitions (Savickas, 2013), the motivation to pursue work-life balance is also likely to motivate individuals to develop the relevant competences and skills to balance their work and non-work lives. Therefore, it is likely that individuals who aim to maintain a good work-life balance are motivated to develop their career adaptability in order to cope with the challenges in achieving this goal.

*Hypothesis 1b:* The work-life balance factor of career success criteria relates positively to career adaptability.

Extrinsic compensation refers to salary, bonuses, and other extrinsic rewards from work. From the perspective of learned industriousness theory (Eisenberger, 1992), the pursuing of extrinsic rewards can motivate proactive career behavior as individuals need to develop relevant skills to secure these rewards (Eisenberger & Aselage, 2009). However, from the self-determination perspective, pursuing extrinsic rewards can also decrease intrinsic motivation by imposing feelings of being externally controlled (Deci, Koestner, & Ryan, 2001; Ryan & Deci, 2000). For example, it has been found that extrinsic motivation is related to higher level of anxiety, lower well-being, higher burnout and other negative outcomes (Sheldon & Elliot, 1998; Vansteenkiste, Neyrinck, Niemiec, Soenens, Witte, & Broeck, 2007). The above discussion suggests that the relationship between extrinsic compensation and career adaptability can either be positive or negative; therefore, we do not develop a specific hypothesis for this relationship.

#### *Career Locus of Control*

Career locus of control refers to one's beliefs about important factors that determine

his/her career success, which include: (a) internal factors such as personal motives, capabilities or effort, (b) external factors such as social or organizational determinants, and (c) chance factor such as luck or chance events (Guan et al., 2013b). Rotter (1966) suggested that individuals with an internal locus of control attribute behavioral consequences to their personal characteristics such as ability and effort. Therefore, they are more likely to proactively develop relevant competencies and skills to achieve positive career outcomes. Previous research has shown that internal locus of control was associated with more positive career outcomes, e.g., salary, promotions, career decision-making self-efficacy, as well as career satisfaction (Guan et al., 2013; Ng et al., 2006; Taylor & Popma, 1990). In light of this, we propose that:

*Hypothesis 2a:* Internal career locus of control relates positively to career adaptability.

The chance factor of career locus of control represents the idea that one's career development cannot be fully controlled by themselves, but rather by luck or chance events. Individuals with this belief may reduce their efforts in building their competencies as their efforts may not pay-off in their career development (Levenson, 1974; Rotter, 1966). Consistently, Guan et al. (2013) found that the chance factor of career locus of control was negatively related to Chinese employees' career satisfaction. Therefore, it is expected that the chance factor will be negatively related to career adaptability.

*Hypothesis 2b.* The chance factor of career locus of control relates negatively to career adaptability.

The external factor of career locus of control refers to the belief that career success

depends on social or organizational factors. This factor can manifest both positive and negative effects on career adaptability, as suggested by previous studies (Guan et al., 2013; Levenson, 1974). On the one hand, when individuals believe their career success is controlled by powerful others or other contextual factors, they may feel that little can be done to promote their career development, which may discourage them from developing their career adaptability (Rotter, 1966; Sunbul, 2003). On the other hand, when individuals attribute career success to these factors, they can also take proactive actions in developing relevant skills to gain social or organizational support (Guan et al., 2013). Therefore, the relationship between external factor of career LOC and career adaptability can also be positive. Due to these reasons, we did not specify a hypothesis for their relationship.

#### *The Mediation Impact of Career Adaptability*

From the perspective of career construction theory (Savickas, 2005; 2013), since career success criteria represent individuals' ultimate career goals and career locus of control reflects individuals' belief on the important factors that determine their success, these two constructs should serve as important action orientations that motivate and guide individuals' efforts in developing their career adaptabilities. To test their fit in the full adaption model, we examined whether career adaptability mediated the effects of career success criteria and locus of control on self-efficacy beliefs. Career decision-making self-efficacy (CDSE) was used to operationally define adapting behaviors in this study. According to Taylor and Betz (1983), CDSE refers to the extent to which individuals believe that they can make satisfactory career decisions. Much research has demonstrated that CDSE served as an important indicator of individuals' adapting responses or coping behaviors (e.g., Gadassi, Gati, & Wagman-

Rolnick, 2013; Hartman & Betz, 2007; Tian et al., 2014).

Using career decision-making self-efficacy as an outcome variable, we developed a mediation model based on career construction theory (Savickas, 2013). This theory posits that career is not fixed, but explored and developed by individuals with their own willingness and abilities (Savickas, 1997). That is, an individual who is willing (adaptivity) and able (adaptability) to change would respond (adapting) better to the changing conditions. We argue that both career success criteria and locus of control can provide important guidance for individuals to develop their career adaptabilities. As career adaptability is what a person may draw upon to solve unfamiliar and complex problems in their career development, individuals with higher levels of career adaptability are likely to develop the belief that they can successfully complete the tasks necessary for making career decisions (e.g., Duffy, Douglass, & Autin, 2015). Based on the above mentioned theoretical framework, we conducted a survey study among Chinese university students to examine the effects of criteria of career success and career locus of control on the adapting response variable of career decision-making self-efficacy, with career adaptability serving as the mediator in this model. In order to reduce common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), we adopted a two-wave research design in this study by measuring criteria of career success, career locus of control and career adaptability at Time 1, and measuring CDSE at Time 2 with a time lag of one month.

## Method

### *Procedure and Participants*

Data were collected from undergraduate students at a university in Beijing, China.



Permission of conducting this study was obtained from the university ethics board.

Participants were recruited from students enrolled in different courses. They signed a consent form and were informed that their personal information would be kept confidential.

Questionnaires were completed by students who volunteered to take part in this study during class time. The first wave of data collection was finished at the end of September 2014, when all participants were instructed to finish questionnaires on career adaptability, criteria of career success, and career locus of control. The second wave took place at the end of October 2014, when participants completed questionnaires on career decision-making self-efficacy.

Four hundred and thirty-seven students provided responses for the two-wave survey. The mean age of the participants (71% females) was 19.24 ( $SD = .85$ ). In terms of their majors, 27.7% were from the school of journalism and communication, 29.1% from the law school, 12.8% from the school of sociology and population studies, 27.7% from the school of finance and the 2.7% from others.

### *Measures*

*Career Adaptability.* Career adaptability was measured with the Chinese version of the 24-item Career Adapt-Abilities Scale (Hou, Leung, Li, Li, & Xu, 2012). Each subscale consists of six items, and students responded on a 5-point Likert-type scale ranging from 1 (not strong) to 5 (strongest). For the global indicator, the Cronbach's alpha was .92.

*Criteria of Career Success.* The 21-item scale developed by Zhou et al. (2013) was used to assess the students' criteria of career success. The 21 items were rated using a 5-point, Likert-type response scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Cronbach's alpha was .88 for extrinsic compensation, .83 for intrinsic fulfillment, and .90 for

work-life balance.

*Career Locus of Control.* Career locus of control was assessed by a 15-item scale developed by Guan et al. (2013). The validity of this multidimensional measure was supported in the Chinese context (Guan et al., 2013). Cronbach's alpha was .86 for internal factor, .89 for external factor, and .84 for chance factor.

*Career Decision-making Self-efficacy.* To assess self-efficacy in career decision-making, we used the scale developed by Betz, Klein and Taylor (1996), which consisted of 25 items. The Chinese version of this scale has been used in previous research (Tian et al., 2014). Students rated their confidence on decision-making tasks on a scale from 1 (not confident at all) to 5 (extremely confident). The overall Cronbach's alpha was .92.

## Results

### *Descriptive Statistics and Correlations*

The descriptive statistics and correlations between career adaptability (including four dimensions: career concern, career control, career curiosity, and career confidence), criteria of career success (including three dimensions: extrinsic compensation, intrinsic fulfillment, and work-life balance), career locus of control (including external factor, internal factor, and chance factor), and career decision-making self-efficacy appear in Table 1. Results showed that intrinsic fulfillment related positively to career adaptability,  $r = .40, p < .001$ , and career decision-making self-efficacy,  $r = .22, p < .001$ . Similarly, work-life balance related positively to career adaptability,  $r = .27, p < .001$ , and career decision-making self-efficacy,  $r = .17, p < .001$ . Internal career locus of control related positively to career adaptability,  $r = .36, p < .001$ , and career decision-making self-efficacy,  $r = .25, p < .001$ . Career

adaptability related positively to career decision-making self-efficacy,  $r = .44, p < .001$ .

Overall, Hypotheses 1a, 1b, and 2a were supported, while Hypotheses 2b was not supported (there was no significant correlation between the chance factor of career locus of control and career adaptability,  $r = -.02, ns$ ).

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Insert Table 1 here  
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### *Testing the Mediation Model*

To examine the mediation role of career adaptability between adaptivity attributes and responding beliefs, regression analysis was conducted with students' age and gender as control variables. As shown in Table 2, intrinsic fulfillment ( $\beta = .25, p < .001$ ), work-life balance ( $\beta = .13, p < .01$ ) and the internal career locus of control ( $\beta = .24, p < .001$ ) each served as significant predictors for career adaptability. The positive relationship between career adaptability and career decision-making self-efficacy ( $\beta = .39, p < .001$ ) was also significant after controlling the effects of independent variables, as well as the students' age and gender. At the same time, when we put all the independent variables and the mediator into the equation, the effects of intrinsic fulfillment ( $\beta = .03, ns$ ), work-life balance ( $\beta = .03, ns$ ) and the internal career locus of control ( $\beta = .09, ns$ ) on decision-making self-efficacy were no longer significant, which suggested that their effects were fully mediated by career adaptability. In addition, we conducted bootstrapping analyses to examine the mediation effect of career adaptability. The results showed that the indirect effect of intrinsic fulfillment (95%  $CI = [.06, .14]$ ), work-life balance (95%  $CI = [.03, .08]$ ), and internal career locus of control (95%  $CI = [.06, .14]$ ) on career decision-making self-efficacy through career adaptability were each significant.

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Insert Table 2 here  
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### Discussion

Based on career construction theory, this study examined the roles of Chinese university students' criteria of career success (extrinsic, intrinsic and work-life balance factors) and career locus of control (external, internal and chance factors) in predicting their career adaptability and career decision-making self-efficacy. Results showed that success criteria of intrinsic fulfillment and work-life balance, as well as internal career locus of control positively predicted Chinese university students' career decision-making self-efficacy. It was also found that career adaptability fully mediated the above relations. These findings advance current understanding of the role that personality traits play in adaptive readiness as well as provide support for the career adaptation model of adaptability resources mediating between adaptive readiness and adapting responses.

#### *Theoretical and Practical Implications*

The results showed that career decision-making self-efficacy was associated with success criteria of intrinsic fulfillment and work-life balance, as well as internal career locus of control. On the one hand, these results supported the self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2000) by demonstrating the positive effects of intrinsic fulfillment on career decision-making self-efficacy. It is possible that intrinsic career motivation leads to a more positive and proactive attitude toward career development activities, which in turn predict a higher level of career adaptability (Quigley & Tymon, 2006). Similarly, as the work-life balance dimension represents the goal of balancing work and non-work lives, it can motivate individuals to develop the relevant competences and skills to balance their work and

non-work lives. As a result, individuals with a high level of work-life balance goal will also display a high level of career adaptability.

The results showed no significant effect of extrinsic compensation factor on career adaptability. This finding suggests that the relationship between these two variables may involve different mechanisms. Pursuing external rewards can motivate proactive career behavior as individuals need to develop relevant skills to compete against their peers in order to secure these rewards (Eisenberger, 1992). However, self-determination theory suggests that extrinsic motivation can also decrease individuals' intrinsic motivation by imposing the feeling of being externally controlled in their career development (Ryan & Deci, 2000; Sheldon & Elliot, 1998; Vansteenkiste et al., 2007). The above discussion suggests that extrinsic career goals may have both positive and negative effects on career adaptability, and these effects may be qualified by other individual or contextual factors. Future research should continue to examine this important question.

In addition to the effects of criteria of career success, it was also found that internal career locus of control also positively predicts career adaptability. As individuals with an internal locus of control attribute behavioral consequences to their personal characteristics, such as abilities and efforts, therefore they are more likely to proactively develop relevant abilities in achieving positive career outcomes (Guan et al., 2013; Ng et al., 2006; Rotter, 1966). However, the external and chance factors did not have significant effects on individuals' career adaptability. It is possible that both factors represent the idea that one's career development cannot be fully controlled by themselves, and have detrimental effects on his/her efforts in building their abilities (Gable et al., 1976; Lease, 2004; Taylor, 1982).

However, when individuals attribute career success to powerful others or chance factors, they can also be motivated to take proactive actions in developing relevant skills to gain more power, to get support from powerful others, or even to change their fate (Levenson, 1974). Therefore, the effects of these two factors on career adaptability can be mixed. The underlying mechanisms of these relations await further research investigation.

Practically, the findings of this study suggest that the career goals of intrinsic fulfillment and work-life balance, as well as internal career locus of control can motivate university students to take proactive actions in developing their career abilities. Vocational educators and counselors may consider adopting the multi-dimensional framework of career success and locus of control to diagnose the problems university students encounter in their career development. In addition, as career adaptability fully mediates the effects of these predictors on career decision-making self-efficacy, this suggests that developing individuals' career adaptability should be an effective way to facilitate their career decision-making process.

#### *Limitations and Future Directions*

This study has several limitations. First, as the results were based on a student sample at one university in China, whether the current findings can be generalized to other Chinese university students, or university students in other cultures awaits future investigation. For example, as Chinese culture is characterized by the collectivistic value, power distance value and dialectical thinking style (Hofstede, 2001; Varnum, Grossmann, Kitayama, & Nisbett, 2010), these cultural orientations may also influence the effects of criteria of career success and career locus of control on career adaptability. It has been found that compared with

American university students, Chinese students are more likely to consider the opinions of significant others, and to make external attributions of their career success (Guan et al., 2015). Due to these dominant cultural orientations in Chinese society, the negative effects of external and chance factors of career locus of control on career adaptability are not as strong as that in Western societies. These important questions should be examined in future research.

Second, as the mediation model revealed in this study was obtained from a student sample, future research should continue to examine whether this model can be supported in employee samples. Moreover, whether this model can be extended to other outcomes, such as individuals' career success, remains to be discovered in future research. Additionally, although the two-wave design helped to reduce the common method bias, causal conclusions still cannot be drawn on the relationships among these variables in concern. Future research should adopt a more rigorous design, such as longitudinal design, or experimental design, to test the causal relations.

### *Conclusions*

Despite these limitations, this research makes contributions to current literature by testing how criteria of career success and career locus of control predict career adaptability and career decision-making self-efficacy. The results showed that the criteria of intrinsic fulfillment and work-life balance, as well as internal career locus of control positively predicted Chinese university students' career adaptability, which in turn predicted career decision-making self-efficacy. These findings advance current understanding on how career goals and career attributions shape individuals' career abilities.

## References

- Arthur, M. B. (1994). The boundaryless career: A new perspective for organizational inquiry. *Journal of Organizational Behavior, 15*, 295-306.
- Arthur, M. B., Khapova, S. N., & Wilderom, C. P. M. (2005). Career success in a boundaryless career world. *Journal of Organizational Behavior, 26*, 177-202.
- Arthur, M. B., & Rousseau, D. M. (1996). The boundaryless career: A new employment principle for a new organizational era. *General Information, 43*, 732-736.
- Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a short form of the career decision-making self-efficacy scale. *Journal of Career Assessment, 4*, 47-57.
- Cai, Z., Guan, Y., Li, H., Shi, W., Guo, K., Liu, Y., et al. (2015). Self-esteem and proactive personality as predictors of future work self and career adaptability: an examination of mediating and moderating processes. *Journal of Vocational Behavior, 86*, 86–94.
- Chan, S. H. J., & Mai, X. (2015). The relation of career adaptability to satisfaction and turnover intentions. *Journal of Vocational Behavior, 89*, 130-139.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L., Koestner, R., & Ryan, R. M. (2001). Extrinsic rewards and intrinsic motivation in education: Reconsidered once again. *Review of Educational Research, 71*, 1-27.
- Duffy, R. D., Douglass, R. P., & Autin, K. L. (2015). Career adaptability and academic satisfaction: Examining work volition and self-efficacy as mediators. *Journal of Vocational Behavior, 90*, 46–54.
- Eisenberger, R. (1992). Learned industriousness. *Psychological review, 99*, 248-267.



- Eisenberger, R., & Aselage, J. (2009). Incremental effects of reward on experienced performance pressure: Positive outcomes for intrinsic interest and creativity. *Journal of Organizational Behavior*, 30, 95-117.
- Gable, R. K., Thompson, D. L., & Glanstein, P. J. (1976). Perceptions of personal control and conformity of vocational choices as correlates of vocational development. *Journal of Vocational Behavior*, 8, 259-267.
- Gadassi, R., Gati, I., & Wagman-Rolnick, H. (2013). The adaptability of career decision-making profiles: Associations with self-efficacy, emotional difficulties, and decision status. *Journal of Career Development*, 40, 490-507.
- Guan, Y., Chen, S. X., Levin, N., Bond, M. H., Luo, N., Xu, J., . . . Han, X. (2015). Differences in Career Decision-Making Profiles Between American and Chinese University Students: The Relative Strength of Mediating Mechanisms Across Cultures. *Journal of Cross-Cultural Psychology*, 46, 856-872.
- Guan, Y., Deng, H., Sun, J., Wang, Y., Cai, Z., Ye, L., . . . Li, Y. (2013a). Career adaptability, job search self-efficacy and outcomes: A three-wave investigation among chinese university graduates. *Journal of Vocational Behavior*, 83, 561–570.
- Guan, Y., Guo, Y., Bond, M. H., Cai, Z., Zhou, X., Xu, J., . . . Ye, L. (2014). New job market entrants' future work self, career adaptability and job search outcomes: Examining mediating and moderating models. *Journal of Vocational Behavior*, 85, 136–145.
- Guan, Y., Wang, Z., Dong, Z., Liu, Y., Yue, Y., Liu, H., . . . Liu, H. (2013b). Career locus of control and career success among Chinese employees: A multi-dimensional approach. *Journal of Career Assessment*, 21, 295-310.

- Guan, Y., Yang, W., Zhou, X., Tian, Z., & Eves, A. (2016). Predicting Chinese human resource managers' strategic competence: Roles of identity, career variety, organizational support and career adaptability. *Journal of Vocational Behavior*, 92, 116-124.
- Guan, Y., Zhou, W., Ye, L., Jiang, P., & Zhou, Y. (2015). Perceived organizational career management and career adaptability as predictors of success and turnover intention among Chinese employees. *Journal of Vocational Behavior*, 88, 230-237.
- Guo, Y., Guan, Y., Yang, X., Xu, J., Zhou, X., She, Z., ... Fu., M. (2014). Career adaptability, calling and the professional competence of social work students in china: a career construction perspective. *Journal of Vocational Behavior*, 85(3), 394-402.
- Hartman, R. O., & Betz, N. E. (2007). The five-factor model and career self-efficacy. *Journal of Career Assessment*, 15, 145-161.
- Heslin, P. A. (2005). Conceptualizing and evaluating career success. *Journal of Organizational Behavior*, 26, 113-136.
- Hofstede, G. (2001). *Culture's consequences: International differences in work related values*. Thousand Oaks, CA: Sage.
- Hou, Z. J., Leung, S. A., Li, X., Li, X., & Xu, H. (2012). Career adapt-abilities scale—China form: Construction and initial validation. *Journal of Vocational Behavior*, 80, 686-691.
- Lease, S. H. (2004). Effect of locus of control, work knowledge, and mentoring on career decision-making difficulties: testing the role of race and academic institution. *Journal of Career Assessment*, 12(12), 239-254.
- Levenson, H. (1974). Ecological knowledge and perception of environmental modifiability. *American Psychologist*, 29, 274-275.

- Li, Y., Guan, Y., Wang, F., Zhou, X., Guo, K., Jiang, P., ... Fang, Z. (2015). Big-five personality and bis/bas traits as predictors of career exploration: The mediation role of career adaptability. *Journal of Vocational Behavior*, 89, 39–45.
- Morrison, R., & Hall, D. (2002). Career adaptability. In D. T. Hall (Ed.), *Careers in and out of organizations*. Thousand Oaks: Sage.
- Ng, T. W. H., Sorensen, K. L., & Eby, L. T. (2006). Locus of control at work: A meta-analysis. *Journal of Organizational Behavior*, 27, 1057-1087.
- Öncel, L. (2014). Career adapt-abilities scale: Convergent validity of subscale scores. *Journal of Vocational Behavior*, 85, 13–17.
- Podsakoff, P. M., Mackenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature. *Journal of Applied Psychology*, 88(5), 879-903.
- Quigley, N. R., & Tymon, J. W. G. (2006). Toward an integrated model of intrinsic motivation and career self-management. *Career Development International*, 11, 522-543.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 1966, 80, 1-28.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54-67.
- Savickas, M, L. (1997). Career adaptability: An integrative construct for life-span, life-space theory. *Career Development Quarterly*, 45(3), 247-259.

- Savickas, M. L. (2005). The theory and practice of career construction. In R.W. Lent, & S. D. Brown (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 42-70). Hoboken, New Jersey: John Wiley & Sons.
- Savickas, M. L. (2013). Career construction theory and practice. In R. W. Lent, & S. D. Brown (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 147-183) (2nd ed.). Hoboken, New Jersey: John Wiley & Sons.
- Sheldon, K. M., & Elliot, A. J. (1998). Not all personal goals are personal: Comparing autonomous and controlled reasons for goals as predictors of effort and attainment. *Personality & Social Psychology Bulletin*, 24, 546-557.
- Sunbul, A. M. (2003). An analysis of relations among locus of control, burnout and job satisfaction in Turkish high school teachers. *Australian Journal of Education* 47, 58–72.
- Taylor, K. M. (1982). An investigation of vocational indecision in college students: Correlates and moderators. *Journal of Vocational Behavior*, 21, 471-476.
- Taylor, K. M., & Betz, N. E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. *Journal of Vocational Behavior*, 22, 63-81.
- Taylor, K. M., & Popma, J. (1990). An examination of the relationships among career decision-making self-efficacy, career salience, locus of control, and vocational indecision. *Journal of Vocational Behavior*, 37, 17–31.
- Tian, L., Guan, Y., Chen, S. X., Levin, N., Cai, Z., Chen, P., ... Zhang, S. (2014). Predictive validity of career decision-making profiles over time among Chinese college students. *Journal of Career Development*, 41, 282-300.

Tolentino, L. R., Garcia, P. R. J. M., Lu, V. N., Restubog, S. L. D., Bordia, P., & Plewa, C.

(2014). Career adaptation: The relation of adaptability to goal orientation, proactive personality, and career optimism. *Journal of Vocational Behavior*, 84, 39–48.

van Vianen, A.E., Klehe, U.C., Koen, J., & Dries, N. (2012). Career adapt-abilities scale-

Netherlands form: Psychometric properties and relationships to ability, personality, and regulatory focus. *Journal of Vocational Behavior*, 80, 716–724.

Vansteenkiste, M., Neyrinck, B., Niemiec, C. P., Soenens, B., Witte, H., & Broeck, A. (2007).

On the relations among work value orientations, psychological need satisfaction and job outcomes: a self-determination theory approach. *Journal of Occupational & Organizational Psychology*, 80, 251-277.

Varnum, M. E. W., Grossmann, I., Kitayama, S., & Nisbett, R. E. (2010). The origin of

cultural differences in cognition: The social orientation hypothesis. *Current Directions in Psychological Science*, 19, 9-13.

Zhou, W. X., Sun, J., Guan Y., Li, Y., & Pan, J. (2013). Criteria of career success among

Chinese employees: Developing a multi-dimensional scale with qualitative and quantitative approaches. *Journal of Career Assessment*, 21, 265-277.

Table 1. *Descriptive Statistics and Correlations among Variables*

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. CA	3.88	0.52	<b>0.92</b>											
2. CA concern	3.69	0.68	0.77***	<b>0.84</b>										
3. CA control	4.09	0.63	0.77***	0.41***	<b>0.83</b>									
4. CA curiosity	3.77	0.66	0.85***	0.54***	0.53***	<b>0.83</b>								
5. CA confidence	3.97	0.60	0.84***	0.51***	0.59***	0.67***	<b>0.86</b>							
6. CSC Extrinsic	2.98	0.75	0.04	0.03	-0.05	0.08	0.06	<b>0.88</b>						
7. CSC Intrinsic	3.80	0.55	0.40***	0.28***	0.33***	0.32***	0.36***	0.22***	<b>0.83</b>					
8. CSC Balance	4.31	0.73	0.27***	0.14**	0.30***	0.21***	0.25***	0.00	0.41***	<b>0.90</b>				
9. CLOC External	2.79	0.83	0.08	0.11*	-0.09	0.14**	0.08	0.40***	0.13**	-0.06	<b>0.89</b>			
10. CLOC Internal	4.05	0.60	0.36***	0.28***	0.30***	0.23***	0.35***	0.02	0.41***	0.24***	0.05	<b>0.86</b>		
11. CLOC Chance	2.79	0.90	-0.02	-0.05	-0.04	0.02	0.00	0.23***	0.01	-0.04	0.41***	0.08	<b>0.84</b>	
12. CDSE	3.76	0.52	0.44***	0.35***	0.31***	0.36***	0.41***	0.00	0.22***	0.17***	-0.01	0.25***	0.01	<b>0.92</b>

Notes. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . Reliability coefficients appear on the diagonal in bold. CA= Career Adaptability. CSC= Career Success Criteria. CLOC= Career Locus of Control. CDSE= Career Decision-Making Self-Efficacy.

Table 2. *Hierarchical Regressions of Career Adaptability and Career Decision-Making Self-Efficacy*

Variables	Career Adaptability		Career Decision-Making Self-Efficacy		
	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	2.85 <sup>***</sup>	0.57	2.72 <sup>***</sup>	1.28	1.06
Gender	-.09	-.12 <sup>**</sup>	-.01	-.03	.01
Age	.10	.13 <sup>**</sup>	0.9	.11 <sup>*</sup>	.06
CSC Extrinsic		-.05		-.03	-.01
CSC Intrinsic		.25 <sup>***</sup>		.13 <sup>*</sup>	.03
CSC Balance		.13 <sup>**</sup>		.08	.03
CLOC External		.06		-.04	-.07
CLOC Internal		.24 <sup>***</sup>		.18 <sup>***</sup>	.09
CLOC Chance		-.07		.02	.05
Career Adaptability					.39 <sup>***</sup>
<i>Adjusted R</i> <sup>2</sup>	.02	.24	.01	.08	.20
<i>F</i>	4.85 <sup>**</sup>	18.21 <sup>***</sup>	1.82	5.82 <sup>***</sup>	12.76 <sup>***</sup>
$\Delta R^2$		.22		.07	.12

Notes. *N* = 437. \* *p* < .05. \*\* *p* < .01. \*\*\* *p* < .001. CSC = Career Success Criteria. CLOC = Career Locus of Control.